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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/000,012	12/04/2001	Makoto Kitamura	01S976-206	7969

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07/18/2003

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EXAMINER

NGUYEN, THUKHANH T

ART UNIT

PAPER NUMBER

1722

DATE MAILED: 07/18/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/000,012

Applicant(s)

KITAMURA ET AL.

Examiner

Thu Khanh T. Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 April 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) 17-19 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6 and 8-16 is/are rejected.
- 7) ☒ Claim(s) 7, 20 and 21 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) <u>3</u> . | 6) <input type="checkbox"/> Other: |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-4, 6, 10-12 and 14 are rejected under 35 U.S.C. 102(b) as being anticipated by Hudson (4,789,323).

Hudson teaches a ring making apparatus a rotary table (13) for transferring a mold containing a die (16) and a punch units (18, 26) between a powder supply stage (48), a pressing stage (29), and a product removal stage (42; col. 5, lines 6-10); a pressing driving means (12) for driving the punch units at the pressing stage; a charging driving mechanism (48-50); a product take-out mechanism (42); a connecting mechanism (10, 11, 27) for connecting the punch units to the press driving mechanism, the charging driving mechanism, and a product takeout mechanism; a unit holding mechanism (21, 29) for holding the punch units while the units are transferred to the next stage; wherein the punch units each includes a first and second upper punches (31, 34) and a first and second lower punches (23, 26); and actuators (24, 33, 12) for independently driving the punches.

3. Claims 1-4, 11 and 14-15 are rejected under 35 U.S.C. 102(b) as being anticipated by Kurata (5,686,118).

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Kurata teaches an apparatus for compressing powder, comprising a rotary table (11) for transferring a mold containing a die (13) and punch units between the powder supply stage, comprising-forming stage and ejecting stage (col. 6, lines 36-43), a press driving mechanism (19, 20, 31, 32) for driving the punch units in the pressing stage, a charging driving mechanism (51 – 62), a takeout mechanism (65-67); a connecting mechanism (19, 17, 18, 56, 57, 71, 11) for connecting the punch units to the charging driving mechanism, the pressing driving mechanism and the takeout mechanism, when the mold is transferred to different stages, a unit holding mechanism (16, 32) for holding the punch units while the mold is transferred to different stages; a machining stage (col. 8, lines 36-38) between the pressing stage and the product takeout stage.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 5 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hudson ('323) as applied to claims 1-4, 6, 10-12 and 14 or over Kurata ('118) as applied to claims 1-4, 11 and 14-15 above, and further in view of Kojima et al (5,364,253).

Hudson and Kurata disclose a powder pressing apparatus as described above, but fails to disclose a clamping mechanism with a sliding claws and mean for sliding the claws.

Kojima et al discloses a power press, comprising upper and lower punches (8, 9), upper and lower dies (4, 7), a clamping mechanism (5, 6, 37, 38) including sliding claws (5, 38), means

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for sliding the claws (10, 50, 51) in order to support the die plate during the molding operation (col. 15, lines 12-15).

It would have been obvious to one of ordinary skill in the art at the time the applicant's invention was made to modify Hudson or Kurata by providing a clamping mechanism with sliding claws as taught by Kojima et al because the clamping means with sliding claws would improve the engagement of the mold units to the charging means, the pressing means and the takeout means.

6. Claims 8 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hudson ('323) as applied to claims 1-4, 6, 10-12 and 14 or over Kurata ('118) as applied to claims 1-4, 11 and 14-15 above, and further in view of Nakagawa et al (5,647,410).

Hudson and Kurata disclose a powder pressing apparatus as described above, but fail to disclose the punches are driven by a driving shaft, including a strut, a ball screw, a servomotor and a timing belt.

Nakagawa et al disclose a powder-molding machine, comprising an upper punch (13) and a lower punch (14) being driven by a ball-bearing nut (16, 18), ball bearing screws (12, 15), a servomotor (17, 19) and a timing belt (22, 25).

It would have been obvious to one of ordinary skill in the art at the time the applicant's invention was made to modify Hudson or Kurata by providing a punch-driving means including a ball bearing nut, ball bearing screws, a servomotor and a timing belt as taught by Nakagawa et al, because this driving means with the servomotor and timing belt would enable accurate control the position of the punches toward and away from each other.

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7. Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hudson ('323) as applied to claims 1-4, 6, 10-12 and 14 or over Kurata ('118) as applied to claims 1-4, 11 and 14-15 above, and further in view of Shapiro (3,677,673).

Hudson and Kurata fail to disclose a cleaning stage for removing powder adhering to the die and to the punch units.

Shapiro discloses a rotary press for compressing powder material, comprising a rotary table (36), a plurality of dies (52) with a plurality of punches, a feed means (50), vacuum means (60) circumferentially located on the upper surface of the rotary table to remove excess powdered material from the mold cavities (col. 4, lines 47-58).

It would have been obvious to one of ordinary skill in the art at the time the applicant's invention was made to modify Hudson and Kurata by providing a cleaning means as taught by Shapiro, because the cleaning means would remove excess material from the dies and the rotary table to prevent contamination during the molding process.

Double Patenting

8. Claims 1-15 of this application conflict with claims 1, 7, 15, 16, 20, 28, 36, 46-49, 52-56, and 65 of Application No. 10/000,067. 37 CFR 1.78(b) provides that when two or more applications filed by the same applicant contain conflicting claims, elimination of such claims from all but one application may be required in the absence of good and sufficient reason for their retention during pendency in more than one application. Applicant is required to either cancel the conflicting claims from all but one application or maintain a clear line of demarcation between the applications. See MPEP § 822.

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9. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

10. Claims 1-14 and 20-21 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1, 7, 15, 16, 20, 28, 36, 46-49, 52-56 and 65 of Application No. 10/000,067. Although the conflicting claims are not identical, they are not patentably distinct from each other because the claims of Application '067 disclose all the claimed features as claimed in the current invention; which is an apparatus comprising a mold transfer mechanism for transferring a mold with a die and punch units between different stages ('067, claim 15), a connecting mechanism for connecting the punch units to a pressing driving mechanism ('067, claim 7), to a charging driving mechanism (claim 59), to a takeout mechanism (claims 1-6); a clamp unit with sliding claw and a driving means for driving the sliding claw (claim 16); a punch unit with first and second upper punches and first and second lower punches independently driven by driving shafts (claims 36, 46-47) including ball screws, a strut base, a servomotor and timing belts (claims 52-53, 56).

Although the '067 Application discloses other limitations that are not disclosed by the current invention, it would have been obvious to one of ordinary skill in the art to omit or to

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replace these limitations because these limitations are not required for the apparatus to operate properly.

Allowable Subject Matter

11. Claim 7, 20-21 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

12. The following is a statement of reasons for the indication of allowable subject matter: the prior art of record fails to teach or suggest an apparatus comprising pressing driving mechanism with a connecting mechanism for connecting and releasing the punch units at the pressing stage; a charging driving mechanism with a connecting mechanism for connecting and releasing the punch units at the charging stage, and a taking-out driving mechanism; wherein the charging driving mechanism and the taking-out driving mechanism each including driving shafts connected to the first and second lower punches and actuators for independently driving the shafts.

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thu Khanh T. Nguyen whose telephone number is 703-305-7167. The examiner can normally be reached on Monday- Friday, 6:30-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wanda L Walker can be reached on 703-308-0457. The fax phone numbers for the

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organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.

TN
July 14, 2003



ROBERT DAVIS
PRIMARY EXAMINER
GROUP ~~1300~~ 1700
7/14/03